

शासनाच्या संकेतस्थळ/ प्रणालींचे विकसन करतांना दिव्यांग जनांनासाठी निश्चित करण्यात आलेल्या भारत सरकारच्या मार्गदर्शक तत्वांचे व विनिर्देशांचे काटेकोर पालन करण्याबाबत.

महाराष्ट्र शासन
सामान्य प्रशासन विभाग (माहिती तंत्रज्ञान)
शासन परिपत्रक क्रमांक - मातंसं २०१८/प्र.क्र.१०२/से-४/३९
मंत्रालय, मुंबई - ४०० ०३२
दि. १८ सप्टेंबर, २०१८

प्रस्तावना-

१. नागरिकांना शासनाच्या सेवा सुविधा घरपोच उपलब्ध होण्यासाठी शासनाच्या योजनांची माहिती शासनाच्या विविध संकेतस्थळांद्वारे उपलब्ध करून देण्यात येत आहे. यांचा लाभ नागरिकांना होत असला तरी दिव्यांग जनांना संकेतस्थळे व संगणक प्रणालींचा वापर करतांना अनेक अडचणींना सामोरे जावे लागायची बाब शासनाच्या निर्देशास आली आहे. शासनाची सर्व संकेतस्थळे दिव्यांगजनांना वापरण्यास सुगम करण्याचे निर्देश मुंबई उच्च न्यायालयाने दिले आहेत. शासनाच्या योजनांचा लाभ दिव्यांग जनांना मिळण्यासाठी व शासनाच्या प्रकल्पांमध्ये दिव्यांगजनांच्या डिजिटल समावेशनासाठी संकेतस्थळे व संगणक प्रणाली विकसकांना दिशानिर्देश करण्याची आवश्यकता आहे. संकेतस्थळे व संगणक प्रणालींच्या विकसकांना दिशानिर्देश केल्याने सामान्य नागरिकांबरोबरच दिव्यांगजनांना मोबाईल प्रणाली, संकेतस्थळे व संगणक प्रणालींचा वापर करणे सुगम होईल व सर्वांना शासनाच्या डिजिटल सुविधांचा लाभ घेता येणे शक्य होणार आहे.

परिपत्रक-

२. राज्यात राबविण्यात येत असलेल्या माहिती व दूरसंचार प्रकल्पांमध्ये दिव्यांग जनांच्या डिजिटल समावेशनासाठी संगणक स्थळे व संगणकीय प्रणालींचे विकसन युनिव्हर्सल डिझाईननुसार होणे आवश्यक आहे. यासाठी विकसकांनी संकेतस्थळे व मोबाईल तसेच संगणकीय प्रणालींचे विकसन करतांना पुढील दिशानिर्देशांचे पालन करणे आवश्यक आहे.

अ. संकेतस्थळे, मोबाईल व संगणक प्रणालींच्या युनिव्हर्सल डिझाईनसाठी विकसकाने डिजिटल अॅसेसिबिलीटीसाठीच्या WCAG२.० Level AA या आंतर राष्ट्रीय मानकांचे तसेच भारत सरकारच्या GIGW दिशानिर्देशांचे पालन काटेकोरपणे करावे.

ब. विकसकांनी संकेतस्थळे, मोबाईल व संगणक प्रणालींवर माहितीचे आदान प्रदान करण्यासाठीची (Digital Accessibility) सुविधा उपलब्ध करून देण्यात यावी.

क. संकेतस्थळे, मोबाईल व संगणक प्रणाली विकसन करण्यासाठी WCAG२.० Level AA अनुसार आवश्यक विनिर्देश जोडपत्र १ प्रमाणे असून GIGW दिशानिर्देश जोडपत्र २ प्रमाणे आहेत. या दिशानिर्देशकांचे विकसकांकडून काटेकोर पालन करण्यात यावे. या दिशानिर्देशानुसारच विकसन करून घेण्याची जबाबदारी संबंधित विभाग / कार्यालयांची असेल.

ड. उच्च न्यायालयाच्या निर्देशानुसार सर्व विभागांनी त्यांची व त्यांच्या अधिनस्त कार्यालयांची संकेतस्थळे २ महिन्यांमध्ये या विनिर्देशानुसार अद्यावत करून घ्यावित आणि याचा अहवाल माहिती तंत्रज्ञान संचालनालयास सादर करावा.

३. सदर शासन परिपत्रक महाराष्ट्र शासनाच्या www.maharashtra.gov.in या संकेतस्थळावर उपलब्ध करण्यात आले असून त्याचा संकेतांक २०१८१००३१५१७३७९४११ असा आहे. हे शासन परिपत्रक डिजीटल स्वाक्षरीने साक्षांकित करून काढण्यात येत आहे.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने,

(एस. व्ही. आर. श्रीनिवास)

प्रधान सचिव (मातं)

महाराष्ट्र शासन

प्रत,

१. मा.राज्यपाल यांचे सचिव
२. मा. मुख्यमंत्री यांचे प्रधान सचिव/सचिव
३. सचिव, मुख्य सचिवांचे कार्यालय, महाराष्ट्र राज्य, मुंबई
४. राज्य मुख्य माहिती आयुक्त, राज्य माहिती आयोग, महाराष्ट्र राज्य, मुंबई
५. सर्व राज्य माहिती आयुक्त, राज्य माहिती आयोग, महाराष्ट्र राज्य, मुंबई
६. प्रबंधक, मुळ न्याय शाखा, उच्च न्यायालय, मुंबई
७. प्रबंधक, उच्च न्यायालयालय, अपिल शाखा, मुंबई
८. सचिव, महाराष्ट्र लोकसेवा आयोग, मुंबई
९. सचिव, महाराष्ट्र विधान मंडळ सचिवाल, मुंबई
१०. प्रबंधक, लोकआयुक्त व उपलोकआयुक्त यांचे कार्यालय, मुंबई
११. मंत्रालयीन विभागाचे सर्व अप्पर मुख्य सचिव/प्रधान सचिव/सचिव
१२. सचिव, माहिती व तंत्रज्ञान विभाग, मंत्रालय, मुंबई
१३. महासंचालक, माहिती व जनसंपर्क संचालनालय, मुंबई
१४. सर्व मंत्रालयीन विभाग
१५. सर्व विभागीय आयुक्त
१६. महासंचालक, यशदा, पुणे
१७. सर्व जिल्हाधिकारी
१८. निवडनस्ती, सा.प्र.वि.कार्यासन सहा.

Annexure I

SN	Digital accessibility requirement specification	Brief Description
1	Text Alternatives	Provide text alternatives for any non-text content so that it can be changed into other forms people need (such as large print, braille, speech, symbols or simpler language).
2	Non-text Content	All images, form image buttons, and image map hot spots have appropriate, equivalent alternative text. Images that do not convey content, are decorative, or contain content that is already conveyed in text are given null alt text (alt="") or implemented as CSS backgrounds. All linked images have descriptive alternative text. Equivalent alternatives to complex images are provided in context or on a separate (linked and/or referenced via longdesc) page.
3	Time-based Media	Provide alternatives for time-based media.
4	Audio Description or Media Alternative (Prerecorded)	A descriptive text transcript OR audio description audio track is provided for non-live, web-based video
5	Adaptable	Create content that can be presented in different ways (for example simpler layout) without losing information or structure.
6	Info and Relationships	Semantic markup is used to designate headings (<h1>), lists (, , and <dl>), emphasized or special text (, <code>, <abbr>, <blockquote>, for example), etc. Semantic markup is used appropriately. Tables are used for tabular data. Where necessary, data cells are associated with their headers. Data table captions and summaries are used where appropriate. Text labels are associated with form input elements. Related form elements are grouped with fieldset/legend.
7	Meaningful Sequence	The reading and navigation order (determined by code order) is logical and intuitive.
8	Use of Color	Color is not used as the sole method of conveying content or distinguishing visual elements. Color alone is not used to distinguish links from surrounding text unless the luminance contrast between the link and the surrounding text is at least 3:1 and an additional differentiation (e.g., it becomes underlined) is provided when the link is hovered over or receives focus.
9	Audio Control	A mechanism is provided to stop, pause, mute, or adjust volume for audio that automatically plays on a page for more than 3 seconds.
10	Resize text	The page is readable and functional when the text size is doubled.
11	Images of Text	If the same visual presentation can be made using text alone, an image is not used to present that text.
12	Keyboard Accessible	Make all functionality available from a keyboard.
13	Keyboard	All page functionality is available using the keyboard, unless the functionality cannot be accomplished in any known way using a keyboard (e.g., free hand drawing). Page-specified shortcut keys and accesskeys (accesskey should typically be avoided) do not conflict with existing browser and screen reader shortcuts.
14	No Keyboard Trap	Keyboard focus is never locked or trapped at one particular page element. The user can navigate to and from all navigable page elements using only a keyboard.

SN	Digital accessibility requirement specification	Brief Description
15	Pause, Stop, Hide	Automatically moving, blinking, or scrolling content that lasts longer than 5 seconds can be paused, stopped, or hidden by the user. Moving, blinking, or scrolling can be used to draw attention to or highlight content as long as it lasts less than 5 seconds. Automatically updating content (e.g., automatically redirecting or refreshing a page, a news ticker, AJAX updated field, a notification alert, etc.) can be paused, stopped, or hidden by the user or the user can manually control the timing of the updates.
16	Seizures	Do not design content in a way that is known to cause seizures.
17	Three Flashes or Below Threshold	No page content flashes more than 3 times per second.
18	Navigable	Provide ways to help users navigate, find content, and determine where they are
19	Bypass Blocks	A link is provided to skip navigation and other page elements that are repeated across web pages. If a page has a proper heading structure, this may be considered a sufficient technique instead of a "Skip to main content" link. Note that navigating by headings is not yet supported in all browsers. If a page uses frames and the frames are appropriately titled, this is a sufficient technique for bypassing individual frames.
20	Page Titled	The web page has a descriptive and informative page title.
21	Focus Order	The navigation order of links, form elements, etc. is logical and intuitive.
22	Headings and Labels	Page headings and labels for form and interactive controls are informative. Avoid duplicating heading (e.g., "More Details") or label text (e.g., "First Name") unless the structure provides adequate differentiation between them.
23	Focus Visible	It is visually apparent which page element has the current keyboard focus (i.e., as you tab through the page, you can see where you are).
24	Readable	Make text content readable and understandable
25	Language of Page	The language of the page is identified using the HTML lang attribute
26	Language of Parts	The language of page content that is in a different language is identified using the lang attribute.
27	Predictable	Make Web pages appear and operate in predictable ways.
28	On Input	When a user inputs information or interacts with a control, it does not result in a substantial change to the page, the spawning of a pop-up window, an additional change of keyboard focus, or any other change that could confuse or disorient the user unless the user is informed of the change ahead of time.
29	Compatible	Maximize compatibility with current and future user agents, including assistive technologies.
30	Parsing	Significant HTML/XHTML validation/parsing errors are avoided. In content implemented using markup languages, elements have complete start and end tags, elements are nested according to their specifications, elements do not contain duplicate attributes, and any IDs are unique, except where the specifications allow these features.
31	Name, Role, Value	Markup is used in a way that facilitates accessibility. This includes following the HTML/XHTML specifications and using forms, form labels, frame titles, etc. appropriately. For all user interface components, the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies.

SN	Digital accessibility requirement specification	Brief Description
32	Audio-only and Video-only (Prerecorded)	A descriptive text transcript (including all relevant visual and auditory clues and indicators) is provided for non-live, web-based audio (audio podcasts, MP3 files, etc.). A text or audio description is provided for non-live, web-based video-only (e.g., video that has no audio track).
33	Captions (Prerecorded)	Synchronized captions are provided for non-live, web-based video (YouTube videos, etc.)
34	Captions (Live)	Synchronized captions are provided for all live multimedia that contains audio (audio-only broadcasts, web casts, video conferences, Flash animations, etc.)
35	Audio Description (Prerecorded)	Audio descriptions are provided for all video content NOTE: Only required if the video conveys content visually that is not available in the default audio track.
36	Sensory Characteristics	Instructions do not rely upon shape, size, or visual location (e.g., "Click the square icon to continue" or "Instructions are in the right-hand column"). Instructions do not rely upon sound (e.g., "A beeping sound indicates you may continue.").
37	Distinguishable	Make it easier for users to see and hear content including separating foreground from background.
38	Contrast (Minimum)	Text and images of text have a contrast ratio of at least 4.5:1. Large text - at least 18 point (typically 24px) or 14 point (typically 18.66px) bold has a contrast ratio of at least 3:1.
39	Enough Time	Provide users enough time to read and use content.
40	Timing Adjustable	If a page or application has a time limit, the user is given options to turn off, adjust, or extend that time limit. This is not a requirement for real-time events (e.g., an auction), where the time limit is absolutely required, or if the time limit is longer than 20 hours.
41	Link Purpose (In Context)	The purpose of each link (or form image button or image map hotspot) can be determined from the link text alone, or from the link text and its context (e.g., surrounding paragraph, list item, table cell, or table headers). Links (or form image buttons) with the same text that go to different locations are readily distinguishable.
42	Multiple Ways	Multiple ways are available to find other web pages on the site - at least two of: a list of related pages, table of contents, site map, site search, or list of all available web pages.
43	On Focus	When a page element receives focus, it does not result in a substantial change to the page, the spawning of a pop-up window, an additional change of keyboard focus, or any other change that could confuse or disorient the user.
44	Consistent Navigation	Navigation links that are repeated on web pages do not change order when navigating through the site.
45	Consistent Identification	Elements that have the same functionality across multiple web pages are consistently identified. For example, a search box at the top of the site should always be labeled the same way.
46	Input Assistance	Help users avoid and correct mistakes.
47	Error Identification	Required form elements or form elements that require a specific format, value, or length provide this information within the element's label. If utilized, form validation errors are presented in an efficient, intuitive, and accessible manner. The error is clearly identified, quick access to the problematic element is provided, and user is allowed to easily fix the error and resubmit the form.

SN	Digital accessibility requirement specification	Brief Description
48	Labels or Instructions	Sufficient labels, cues, and instructions for required interactive elements are provided via instructions, examples, properly positioned form labels, and/or fieldsets/legends.
49	Error Suggestion	If an input error is detected (via client-side or server-side validation), provide suggestions for fixing the input in a timely and accessible manner.
50	Error Prevention (Legal, Financial, Data)	If the user can change or delete legal, financial, or test data, the changes/deletions can be reversed, verified, or confirmed.
51	Visual Captcha	Alternative mode of authentication should be offered to in order to be authenticated
52	Mandatory use of Unicode for regional language	Unicode facilitates assistive technology to access content.

Annexure 2

COMPLIANCE MATRIX of GIGW	
Websites - General Guidelines	
S.No.	GUIDELINE
1	Department has nominated a Web Information Manager as defined in the guidelines.
2	It has been ensured that all stationery of the department as well as advertisements/public messages issued by the concerned Department prominently display the URL of the web site.
3	Website has the following clearly defined policies and plans approved by the web information manager.
	1. Copyright Policy.
	2. Content Contribution, Moderation & Approval (CMAP) policy.
	3. Content Archival (CAP) policy.
	4. Content Review (CRP) policy.
	5. Hyper linking Policy.
	6. Privacy Policy.
	7. Terms & Conditions.
	8. Website Monitoring Plan.
	9. Contingency Management Plan.
	10. Security Policy.
4	Source of all documents, not owned by the dept. that have been reproduced in part or full, is mentioned.
5	Due permissions have been obtained for publishing any content protected by copyright.
6	Home page of website displays the last updated/reviewed date.
7	Complete information including title, size format and usage instructions is provided for all downloadable material.
8	With respect to each, Circular, Notification, Document, Form, Scheme, Service and Recruitment notice, The following should be clearly listed in the Website:
	a. Complete title
	b. Language (if other than English)
	d. Purpose/procedure to apply (as applicable)
	e. Validity (if applicable)
9	All outdated, irrelevant content (like Announcements, Tenders, Recruitment notices, News and Press Releases) is removed from the website and/or placed into the archives as per the archival policy.
10	The language is free from spelling and grammatical errors.
11	Mechanism is in place to ensure that there are no 'broken links' (internal as well as external) or 'Page not found' errors.
12	There are no links to 'under construction' pages.
13	The mechanism is in place to check the accuracy of Hyperlinked Content and Clear indications are given when a link leads out to a non-government website.

14	Website provides a prominent link to the 'National Portal' from the Home Page and Pages belonging to National Portal load in new browser window.
15	Association to Government is demonstrated by the use of Emblem/Logo in proper ratio and colour, prominently displayed on the homepage of the website.
17	Website uses Cascading Style Sheets to control layouts/styles and incorporates responsive design features to ensure that the interface displays well on different screen sizes.
16	Ownership information is displayed on the homepage and on all important entry pages of the website and each subsequent page is a standalone entity in terms of ownership, navigation and context of content.
18	Website is readable even when style sheets are switched off or not loaded.
19	Proper page title and language attribute along with metadata for page like keywords and description are appropriately included.
20	Data tables have been provided with necessary tags/mark up.
21	The website has a readily available Help section linked from all pages of the website.
22	All information about the department, useful for the citizen and other stakeholders, is present in the 'About Us' section and mechanism is in place to keep the information up to date.
23	Website has a 'Contact Us' page providing complete contact details of important functionaries in the department and this is linked from the Home Page and all relevant places in the website.
24	Feedback is collected through online forms and mechanism is in place to ensure timely response to feedback/queries received through the website.
25	The website has been tested on multiple browsers. Hindi/Regional language fonts have been tested on popular browsers for any inconsistency (loss of layout).
26	Minimum content as prescribed in the guidelines is present on the homepage and all subsequent pages.
27	It is ensured through content moderation and approval policy that Website content is free from offensive/discriminatory language.
28	Text is readable both in electronic and print format and the content prints correctly on an A4 size paper.
29	Website has cleared security audit.
30	Website is in the nic.in or gov.in domain.
31	Website is hosted in a data centre in India having the following facilities:
	1. State-of-the art multi-tier security infrastructure as well as devices such as firewall and intrusion prevention systems.
	2. Redundant server infrastructure for high availability.
	3. Disaster Recovery (DR) Centre in a geographically distant location.
	4. Helpdesk & technical support on 24x7x365 basis.
32	Website is bilingual with a prominent language selection link and uses Unicode characters.
33	Documents/Pages in multiple languages are updated simultaneously.
34	Documents are provided either in HTML or other accessible formats. Download details (File Format Size) & instruction for viewing these is provided.
35	Mechanism is in place to ensure that all tender/recruitment notices are published/linked through the website.
36	All documents have a publish date on the main page.

Websites - Accessibility Guidelines	
S.No.	GUIDELINE
1	All non-text content (like images) has a text alternative that provides equivalent information as the image itself.
2	Scanned Images of text have not been used.
3	The visual presentation of text and images of text has a contrast ratio of at least 4.5:1 between the foreground and background. Large scale text and images of text have a contrast ratio of 3:1.
4	Text can be resized without assistive technology up to 200 percent without loss of content or functionality.
5	There is a mechanism to pause, stop or hide scrolling, blinking or auto updating content that starts automatically and lasts for more than 5 seconds.
6	Web pages do not contain any content that flashes for more than three times in a second.
7	Instructions provided for understanding and operating content do not rely solely on sensory characteristics such as shape, size, visual location, orientation, or sound.
8	Colour is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.
9	Captions or transcript are provided for all pre-recorded and live audio and video content.
10	For any audio on a Web page that plays automatically for more than 3 seconds, a mechanism is available to pause, stop or control the volume of the audio independently by from system volume level.
11	Information, structure, and relationships that are conveyed visually on a web page must also be programmatically determined or are available in text.
12	When the sequence in which content is presented affects its meaning, a correct reading sequence can be programmatically determined.
13	All functionality that is available on the web page is operable through keyboard.
14	Complete web page is navigable using keyboard only (using tab or arrow keys).
15	Current navigation location (Keyboard focus indicator) is visible on the webpage while operating or navigating the page through a keyboard.
16	Web pages allow the user to bypass blocks of content like navigation menus that are repeated on multiple pages (by using the skip to content link).
17	Any web page within the website is locatable either through "search" or a "sitemap".
18	Navigational mechanisms that are repeated across the website occur in the same relative order on each page.
19	If a webpage can be navigated sequentially and the navigation sequence affect the meaning of operation, then all components must receive focus in the same meaningful sequence (Creating a logical tab order through links, form controls, and objects).
20	The purpose of each link is clear.
21	Time limit for time dependent web functions is adjustable by the user.
22	Complete & self-explanatory title that describes the topic and purpose of the page has been provided.
23	Headings wherever used, correctly describe topic or purpose of content.
24	Language of the complete web page has been indicated. If there is a change in language within a webpage it also indicated.
25	Nomenclature of components that have the same functionality is uniform across the website.

26	When any component on the web page receives focus or its settings are changed it does not initiate change in context.
27	Changing the setting of any user interface components does not automatically cause a change in context.
28	If an input error is detected, the item is identified and the error is described to the user in text. Suggestions for correction if known are provided to the user.
29	Labels or instructions have been provided wherever input from the users is required.
30	For Web pages that cause legal commitments or financial transactions a mechanism is available for reviewing, confirming, and correcting information before finalizing the submission.
31	Web Page uses mark-up language as per specification.
32	Name and Role of all interface components can be programmatically determined.
Mobile Apps - Accessibility Guidelines	
S.No.	GUIDELINE
1	Platform accessibility features have been optimally used and they behave as intended.
2	Proper labels have been provided for all UI elements.
3	The role for a UI element is available programmatically so that assistive technology can report this either through speech or Braille.
4	Hints have been provided for all active UI control elements.
5	The changes of state of UI controls are dynamically updated and accurately available to the assistive technologies.
6	Related UI elements have been grouped together.
7	A non-interactive space of at least one point for iOS or 1 DP for android has been provided between actionable UI elements.
8	Touch targets are at least 9x9mm regardless of screen size.
9	Focus is always on the active UI control.
10	When a UI control has context specific menu items, users are informed that such a menu is present and are able to activate those menu items.
11	Content when navigated using the screen reader gestures forms a meaningful sequence.
12	The app resizes its UI elements in accordance with device settings for text size.
13	Colour contrast ratio between foreground text for up to 18 point font and background is at least 4.5:1.
14	Colour & shape is not the only means to communicate important information.
15	Focus is changed only when the user activates a UI element that is designated for confirming an action such as the Submit button.
16	Appropriate keyboard is invoked by the app depending on the type of field or the data that needs to be provided by the user.
17	Apps is compatible with hardware keyboard.
18	Gestures do not require 3 or more fingers to interact with UI elements.
19	Session timeouts have been avoided. If a timeout cannot be avoided, then an option has been provided for users to extend the time limit before the timeout occurs.
20	Captions have been provided for all audio content and subtitles/transcript have been provided for all video content that is accompanied by audio.
21	For videos that do not have an audio equivalent, audio description for the video content that is crucial for blind users to understand the content has been provided.

22	No content flashes more than 3 times in one second.
Mobile Apps - General Guidelines	
S.No.	GUIDELINE
1	Clear instructions on using the app have been provided
2	Mobile app and APIs have been security audited by Cert-in empanelled vendors.
3	APIs have been hosted in secure data centers equipped with firewalls and other security features.
4	Hosting service provider provides 24X7 accesses to APIs and backend databases.